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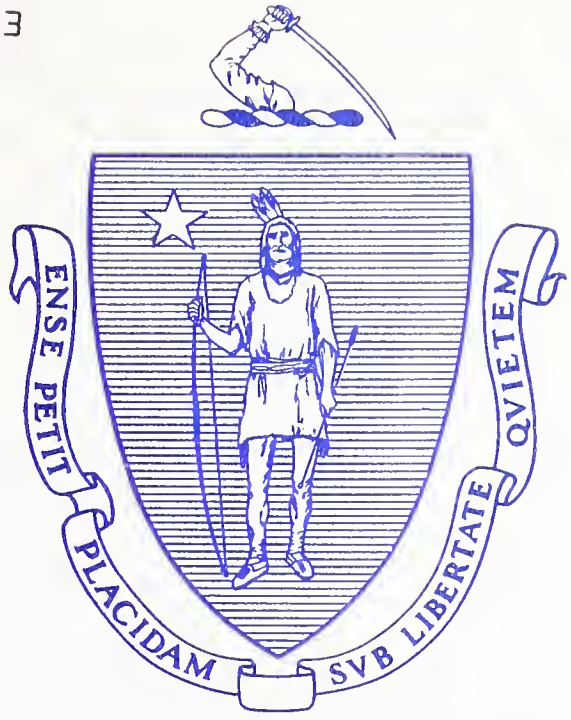


# VOCATIONAL EDUCATION IN MASSACHUSETTS

# MINI-PLAN

# 1983-1987

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BASED ON THE
MASSACHUSETTS FIVE AND
THREE YEAR PLAN FOR
VOCATIONAL EDUCATION

Massachusetts
Department of Education
1385 Hancock Street
Quincy, Massachusetts 02169

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Produced by the Bureau of Operational Support
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# Contents


Page

Preface ..... 2

Vocational Education Overview ..... 3

Vocational Education Goals and Objectives ..... 3

Proposed Use of Funds for Fiscal Years 1983-1987 ..... 4

Distribution of Funds for Fiscal Years 1983-1987 ..... 5

Local Advisory Councils ..... 6

Vocational Education and Manpower Training Programs Coordination ..... 7

Equal Access ..... 7

Vocational Education Program Evaluation ..... 8

Results of Student Employment Success ..... 9

Estimated Wage Rates for Vocationally Trained Graduates ..... 9

Percentage of Students Employed in a Field Related to Vocational Training ..... 10

Estimated Expenditures for Fiscal Year 1981 ..... 11

Estimated Enrollments for Fiscal Year 1981 ..... 12

# Preface

This abridged version of the State Plan and Accountability Report is designed to provide an overview of the status of vocational education in Massachusetts.

Since this publication is an overview of a document containing nearly 500 pages, it is by no means complete or comprehensive. The omission of any issue or goal does not imply its lack of importance. Persons seeking specific information to use as a basis for vocational education programs, services, and activities should consult *The Commonwealth of Massachusetts Five and Three Year State Plan for Vocational Education Fiscal Years 1983-1987 and Annual Accountability Report for Vocational Education Fiscal Year 1981.*

# Vocational Education Overview

*The Commonwealth of Massachusetts Five and Three Year State Plan for Vocational Education Fiscal Years 1983-1987 and Annual Accountability Report for Vocational Education Fiscal Year 1981* is a comprehensive document which serves as the basis for the receipt of Public Law 94-482 Federal funds for students of the Commonwealth.

The elements of the Five Year State Plan include but are not limited to: an assessment of employment opportunities in the Commonwealth, the goals the Commonwealth will seek to meet employment needs, the planned funding to meet employment and program needs, policies and procedures for the distribution of vocational education funds, a description of the mechanism established for coordination between vocational education programs and CETA prime sponsors, and the policies and procedures developed to insure equal access to programs by both men and women. The Three Year Plan implements the first three years of the Five Year State Plan.

The Annual Accountability Report details the use and recipients of federal funds under Public Law 94-482. The report describes occupational education programs in Massachusetts, student achievement, student employment success and services to special populations. Additionally, the report provides a summary of the evaluation of vocational education programs and describes how evaluation results were used to improve vocational programs. The report also serves as the response to the recommendations of the Massachusetts Vocational-Technical Advisory Council.

Vocational education comprises all organized educational programs that prepare individuals for employment, or for additional training for a career requiring other than a baccalaureate or advanced degree. The purpose of vocational education is threefold:

1. to aid in the development of individual potential, for example:
   - the process of skills acquisition,
   - the sense of accomplishment resulting from having acquired a chosen set of skills;
2. to provide entry-level, employable skills, for example:
   - the acquisition of specialized skills in pursuit of a chosen career,
   - training or retraining for employment purposes,
   - the attainment of basic employable skills common to a broad range of occupations; and,
3. to assist individuals in preparation for entry level into advanced trade, industrial or technical education programs.

# Vocational Education Goals and Objectives

The general goal of vocational education in Massachusetts is to use effectively and efficiently all available resources in order to provide

vocational training and support services that are of high quality, realistic in the light of actual or anticipated employment needs and that meet the needs, interests, and abilities of the citizens of Massachusetts. The goals and objectives of the Five Year Plan for Vocational Education during fiscal years 1983-1987 are divided into six major categories:

*Administration*

GOAL 1: To administer effectively vocational education in Massachusetts.

*Educational Equity*

GOAL 2: To increase opportunities in vocational programs that are of high quality and realistic in terms of employment demand that meet the needs, interests and abilities of all citizens, have equal access for all and will insure that all students (particularly minorities, females, limited-English proficient, handicapped, disadvantaged) are afforded equal access to vocational education programs.

*Improvement of Vocational Programs*

GOAL 3: To improve vocational education programs and services. The purpose of this goal is to encourage the development and implementation of uniform standards in all vocational education programs; to promote, support, and improve the quality of staff development programs; to increase student's competence and career decision-making skills; to serve special adult populations; and to meet employment needs in new occupational areas.

*Provision of Support Services*

GOAL 4: To promote informed training and career choices; to enable vocational guidance counselors to provide sound counseling to a broad range of persons; to promote the coordination of vocational guidance and counseling with the businesses, industries and professions that employ the graduates of vocational education programs; and to encourage the formation of peer and group counseling activities to retain students enrolled in programs that are nontraditional for their sex.

*Promotion of Economic Development*

GOAL 5: To develop and implement vocational programs and/or services that promote economic development within Massachusetts.

*Local Advisory Councils*

GOAL 6: To increase the effectiveness of local advisory councils.

## Proposed Use of Funds for Fiscal Years 1983-1987

The proposed use of federal funds by subpart for fiscal years 1983-1987 is described below.

*Subpart 2 — Basic Grant*

Purpose: (a) To increase the number of handicapped, disadvantaged and limited English proficient students who enroll in intensive skills training programs, and to enhance the ability of these students to successfully complete such programs.

(b) To provide employable skills for persons who have completed or left high school or who have already entered the labor market.

(c) To improve the quality of vocational education, expand program offerings, and increase enrollments in skills training programs.

*Subpart 3 — Vocational Guidance and Counseling*

Purpose: To improve the quality of counseling and guidance provided to persons about to enter, enrolled in, or leaving vocational education programs.

*Subpart 4 — Special Disadvantaged*

Purpose: To provide vocational education programs for disadvantaged persons in areas of high concentration of youth unemployment and school drop-outs.

*Subpart 5 — Consumer and Homemaking Education*

Purpose: To prepare students for combining the roles of homemaker and wage earner, to encourage both males and females to prepare for the occupation of homemaking, and to improve the quality of community life through the instruction of community members in homemaking and consumer education.

The formula for the distribution of funds based on economic and demographic characteristics determines the amounts and sources of funds for each local education agency. Not all school systems will be eligible for all sources of funds.

## Distribution of Funds for Fiscal Years 1983-1987

New funding formulas have been developed for the proposed allocation of Public Law 94-482 funds by category among eligible recipients. The formulas are for use through fiscal years 1983-1987. They have been designed to increase the utilization of Federal Vocational Education Act funds for improving vocational education programs and services by providing a better match between limited dollars and the urgent program needs.

Among the advantages of the new allocation methodology are:

1. the addition of recent school lunch data for measurement of concentration of low income individuals, along with AFDC data;
2. The measurement of eligible recipient need through indices which compare the data of eligible recipients directly to statewide averages;

3. the recognition of relative program costs by additional or weighted counting of pupils enrolled in multi-year state approved intensive job skills training programs for total secondary, special needs, and limited-English proficient student populations;
4. updating the population income measure;
5. the upgrading of minimum allocations for some funding categories to assure that funded programs are large enough to have measurable impact;
6. allowing regional school districts to participate in the special disadvantaged allocation distribution, as long as their index of need is significantly higher than the statewide average, and their membership includes at least one city (population of 50,000 or more); and
7. recognition of equalized effort in support of occupational programs.

Federal funds are allocated by formula to public school districts, public community colleges and other eligible recipients. These funds are not to be considered an entitlement and awards are made on the basis of submitted applications reviewed according to the criteria provided in this section.

Priority among eligible applicants is determined by the relative financial ability to provide resources, the number or concentration of low income families, unemployment rates and the level of economic depression.

Priority among eligible programs is determined by: the need for the program (including labor market demand, with preference given to programs new to the area and those designed to meet new emerging employment needs); the quality of program design (including development of objectives, and plans for evaluation, management and implementation); the degree of coordination for planning program development with other schools and training institutions; the extent of the program's impact on overcoming sex stereotyping in vocational education; and the degree of cost effectiveness in the use of funds.

Priority among populations to be served is determined by federal, state and local policy stressing access to vocational education and support services for the handicapped, disadvantaged, persons with limited-English proficiency, minorities and persons in programs that are nontraditional for their sex.

## Local Advisory Councils

Each local education agency is required to have an operating Local Advisory Council in order to be eligible for Federal vocational education funds. Local Advisory Councils are designed to be composed of representatives from the general public, business, industry and organized labor. The Councils are expected to advise on current job needs and the relevance of programs and courses being offered by local education agencies.

The Local Advisory Councils in the Commonwealth of Massachusetts assisted the occupational programs in such ways as: evaluating the

relevance of program content in accordance with the requirements of actual occupations; developing occupational opportunities; advising on curriculum, equipment, methods of instruction and facilities; supplying information about jobs available for graduating students; providing assistance to local school personnel in the application for State and Federal funds; and supplying accurate and timely information on local manpower demands, job market trends, technological developments and opportunities for postsecondary training. The Local Advisory Councils' strong participation and support have had an impact on programs in every section of the Commonwealth.

## Vocational Education and Manpower Training Programs Coordination

Coordination of manpower development efforts with other education and training agencies at the state and local level is one of the major goals of vocational education in Massachusetts. This coordination will be actualized through the participation of CETA vocational activities with the Department of Manpower Development, eleven Prime Sponsors, the Governor's Council on Youth Unemployment and the State Advisory Council on Vocational Education. Such participatory involvement will have the following objectives:

*Objective #1:* Prepare CETA clients for jobs through vocational education, upgrading of skills, basic education and assessment; provide coordination; and facilitate the utilization of existing facilities to eliminate duplication in order to reduce unemployment, improve job satisfaction and labor force production through cooperative, coordinated agency efforts.

*Objective #2:* Utilize CETA funds to expand vocational opportunities for clients in order to provide maximum service at minimum cost through a coordination of CETA and other vocational education efforts.

*Objective #3:* Coordinate CETA efforts on the secondary, postsecondary and adult levels of vocational education to provide relevant technical expertise, in order to deliver vocational education programs and appropriate support services at all educational levels with a minimum of duplication.

## Equal Access

It is the policy of the Board of Education of the Commonwealth of Massachusetts that all state residents have right of access to the public schools of the Commonwealth and equal enjoyment of the opportunities, advantages, privileges and courses of study at such schools without regard to race, color, sex, religion, national origin, English language proficiency or handicap. The Board has promulgated regulations to insure this right of access, and requires that the regulations be liberally construed for these purposes.

Furthermore, it is the policy of the Board of Education that equal access to vocational education is especially important, and consequently

it has promulgated specific regulations to this end. All state-aided and regulated vocational education programs are required to submit their admissions criteria in writing to the Division of Occupational Education for review. Funding is contingent on, among other factors, approval of the admissions criteria by the Division. All criteria that discriminate on the basis of sex, race, religion, color, national origin or special needs are prohibited.

In addition, the Board has specifically regulated the admissions practices of selective secondary vocational schools, requiring that they admit qualified applicants of both sexes and all racial and ethnic groups in numbers proportionate to the existence of each such group in the secondary school population of the geographic area served by the school. The Division has instituted a number of additional incentives to encourage the enrollment of all priority populations in skills training programs, including enrollment of females and males in programs nontraditional for their sex, and to develop model programs, including model programs to reduce sex stereotyping in training and placement.

The Division collects extensive data on enrollment by gender, race, linguistic group, and special needs in occupational training programs. These data are analyzed by Divisional staff to determine areas where progress is being made (and thus enable identification of related successful programs), and areas where traditional patterns still prevail.

For example, since the monitoring of the selective secondary vocational schools began in 1977, the enrollment of females has increased by 22 percent while the total enrollment increase has been only 10 percent. In addition, female enrollments measured statewide in nontraditional training areas have increased significantly. Between 1976 and 1981, the percentage of females enrolled in agricultural training programs increased from 24 percent to 36 percent; the percentage of females in technical training programs increased from 9 percent to 27 percent; and the percentage of females in trade and industrial training programs increased from 9 percent to 17 percent.

## Vocational Education Program Evaluations

Vocational education programs that are recipients of state and federal vocational funding are evaluated annually from a sample of local education agencies. Over a period of five years, all public secondary schools and postsecondary institutions will have participated at least once in a program audit.

The effectiveness of Public Law 94-482 vocational education projects approved for Fiscal Year 1981 was evaluated by the completion of Quarterly Progress Reports and on-site visits by regional or central Department of Education staff. A total of 2,670 Quarterly Progress Reports and Final Reports for 890 federally approved projects accounted for progress in achieving stated objectives, reporting the status of financial records, and discussing the success and shortcomings of the projects. For on-site monitoring, 451 federal projects were evaluated according to the extent that their objectives and activities

were being implemented as planned. Additionally, 25 school districts received program audits for their vocational education programs, while 58 school districts received on-site monitoring. Fifty CETA funded programs were monitored on-site.

Additional features of the evaluation system include the following components:

1. Results of Planning and Operational Processes as Measured by:
   a. Quality and availability of instructional offerings
   b. Guidance, counseling and placement and follow-up service
   c. Teacher qualifications
   d. Employer participation in cooperative programs
2. Results of Student Achievement as Measured by:
   a. Criterion-referenced tests
   b. Mastery of a set of basic skills for certification
   c. Other tests used to measure students' skills, knowledge, attitudes, and readiness for entering successful employment
3. Results of Student Employment Success as Measured by:
   a. Rates of employment and unemployment
   b. Wage rates
   c. Attainment of employment in a field related to training
4. Results of Additional Services as Measured by Services to:
   a. Women
   b. Members of minority groups
   c. Handicapped persons
   d. Disadvantaged
   e. Limited-English proficient

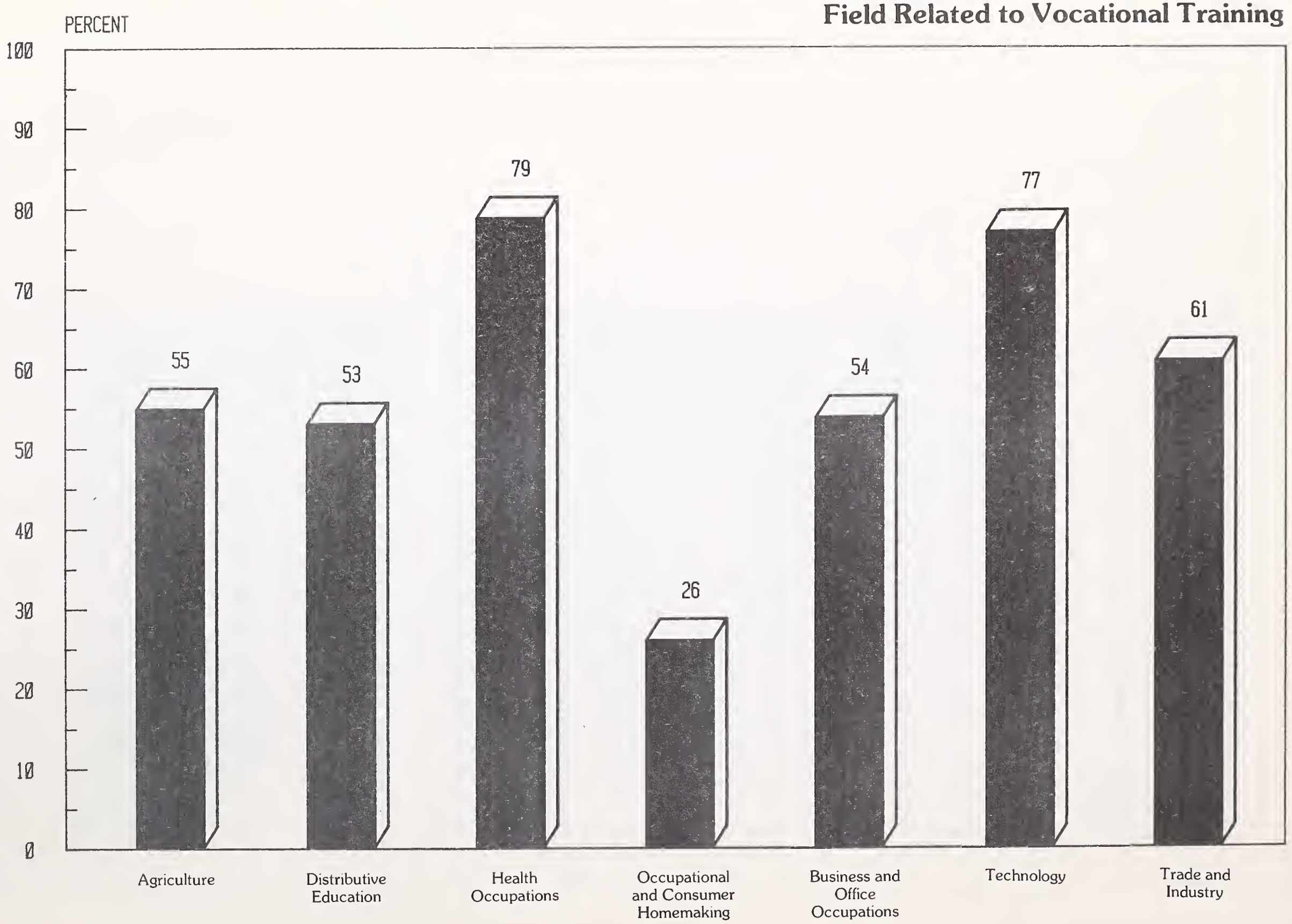
## Results of Student Employment Success

Student employment data for Chapter 74 completers and leavers in secondary and postsecondary programs during 1979-80 were collected through the Vocational Education Data System (VEDS). When analyzed these data indicate whether students found employment in a field related to their vocational training and their current wages. The results of these data analyses reflect the extent of student employment success.

## Estimated Wage Rates for Vocationally Trained Graduates

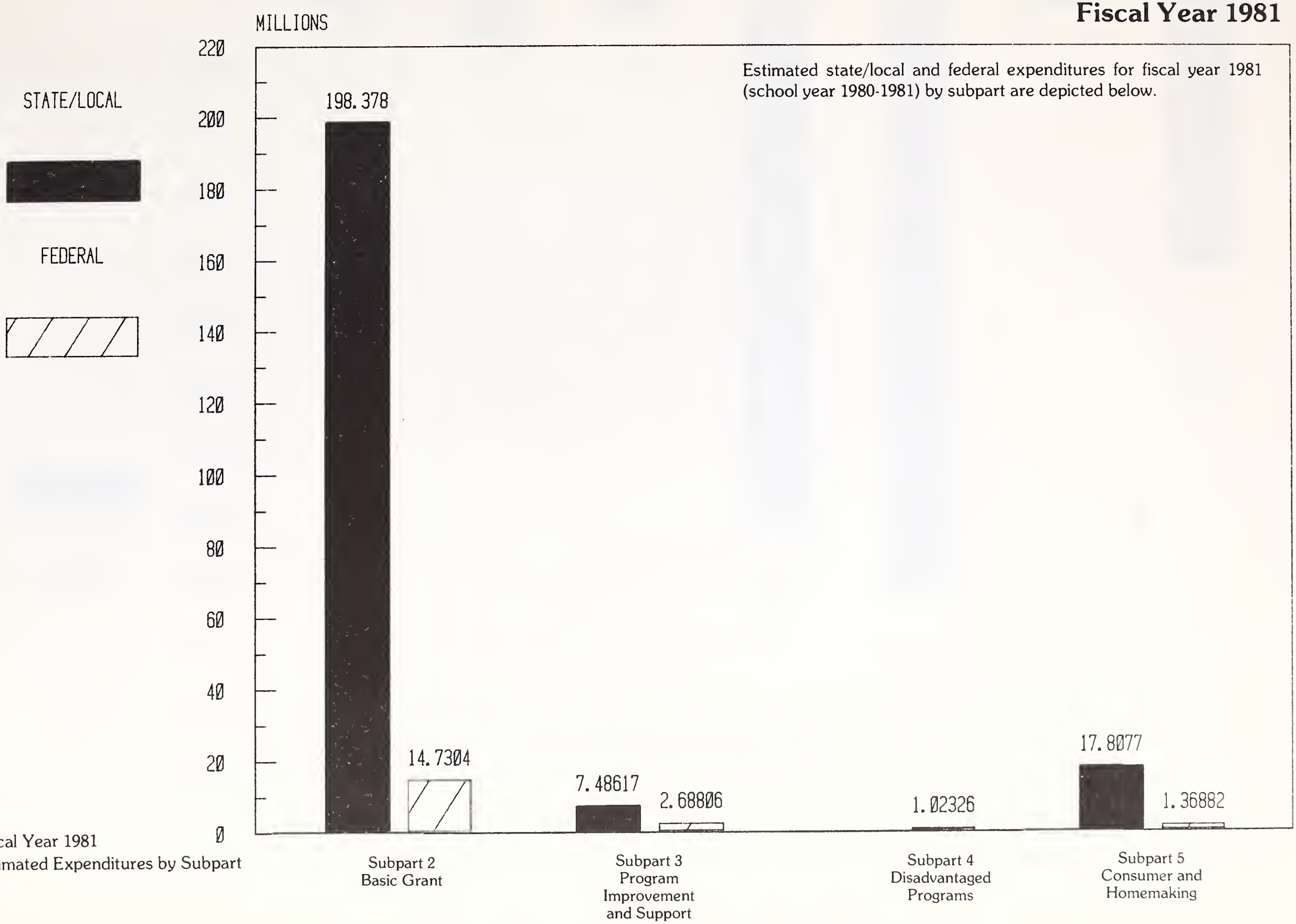
| Vocational Training Program | Average Hourly Salary |
|---|---|
| Agriculture | $4.10 |
| Distributive Education | $3.98 |
| Health Occupations | $5.04 |
| Occupational Consumer and Homemaking | $3.79 |
| Business and Office Occupations | $5.27 |
| Technology | $5.70 |
| Trade and Industry | $5.15 |

## Percentage of Students Employed in a Field Related to Vocational Training



# Estimated Expenditures for Fiscal Year 1981

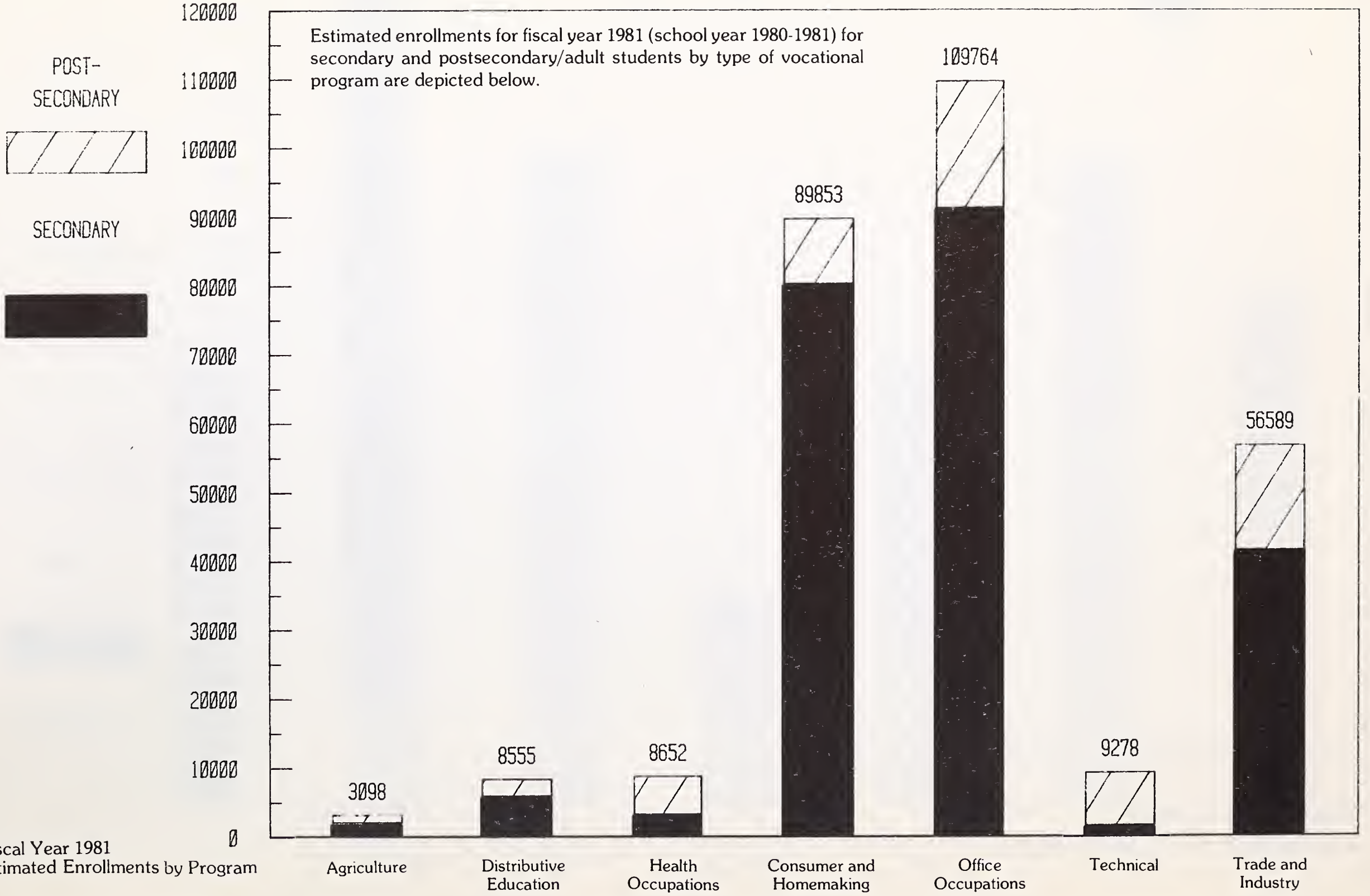
Estimated state/local and federal expenditures for fiscal year 1981 (school year 1980-1981) by subpart are depicted below.




Fiscal Year 1981
Estimated Expenditures by Subpart

# Estimated Enrollments for Fiscal Year 1981

Estimated enrollments for fiscal year 1981 (school year 1980-1981) for secondary and postsecondary/adult students by type of vocational program are depicted below.




Fiscal Year 1981
Estimated Enrollments by Program